

# '99 ANNUAL REPORT

Arkansas Science & Technology

## AUTHORITY

Ultima Group

HARDY

Camden Concrete

CAMDEN

Camden Concrete

CAMDEN

LOUISIANA  
FORT SMITH

Horticulture

UAF

UAF

Arkansas Microelectronics

Development Corporation

FAYETTEVILLE

FAYETTEVILLE

Moseley Wood Products

Moseley Wood Products

PINE BLUFF

Biomedical Biotechnology Center

Biomedical Biotechnology Center

UAMS, LITTLE ROCK

Moseley Wood Products

Moseley Wood Products

PINE BLUFF

Harvest Naturals

POCAHONTAS

Harvest Naturals

POCAHONTAS

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# Introduction

## Letter from Chairman and President

Dear Governor Huckabee  
& Distinguished Legislators:

The Board of Directors and staff of the Arkansas Science & Technology Authority are pleased to submit to you the Authority's Fiscal Year 1999 Annual Report. The report summarizes the scientific and technological projects by which the Authority carries out its statutory mission to bring the benefits of science and advanced technology to the people and State of Arkansas.

We take pride in pointing out the Authority's unique statewide focus on crosscutting science and technology issues. It has broad and flexible statutory authority, which allows the Board to keep abreast of changes in science and technology. Reliance on the private-sector dominated Board for decision making gives the Authority credibility in delivering economic benefits from thoughtful, long-term investments in research, development, and commercialization of technology. The Authority's mission is a continuous one, because of the nature and pace of scientific discovery, and is essential to the state's continued economic well being.

This is perhaps illustrated by the inclusion of the Authority on a variety of task forces and commissions created during the 1999 session of the 82nd Arkansas General Assembly. These new organizations include the Commission on Information Age Communities, the Information Technology Task Force, the Statewide Radio System Work Group and the Public Education Technology Advisory Board.

We also report that the Board reviewed and adopted five goals for Fiscal Year 1999 and that the Authority carried out these corresponding activities during the fiscal year.

**Goal 1 - Continue to offer the Authority's existing products and services.** The Authority has continued to do this, as we report in this annual report. We point out that the report's emphasis on a single fiscal year may understate the Authority's large-scale, multi-year initiatives with federal partners, such as the National Institute of Standards and Technology's (NIST) Manufacturing Extension Network (Network). The Authority is the managing partner of this six-year initiative designed to support the state's small and medium-sized manufacturing enterprises. The Authority's Network staff continue to assist Arkansas manufacturers in improving product and process technologies; Network clients reported a \$5.6 million increase in sales from August 1997 to July 1998, according to a Census Bureau report.

In summary, the Authority approved investments of \$4,183,072.69 in 106 research, development, and commercialization projects - with the Applied Research Grant Program providing the largest amount of state match to private sector investment since the program's inception in 1986.

**Goal 2 - Become more of an information organization.** The Authority continued its effort to improve its management of information after posting the Fiscal Year 1998 Annual Report, the first one prepared for electronic access and the first document posted to the Authority's Web site. During the year, other information was added to the Web site and the Authority improved the design and use of both the project database and the Network's database. Project database entries rose from 398 to 1,043 and span from Fiscal Year 1986 to Fiscal Year 1999. A computerized mapping application for the database is currently being developed to produce management tools and reports.

**Goal 3 - Find interesting technologies, nurture them, move them to the marketplace, and create new businesses and jobs in the process.** The Authority helped Arkansas firms apply to the federally funded Small Business Innovation Research (SBIR) Program through a "virtual" SBIR program at the state level. We are pleased to report that Arkansas has attracted national attention for its innovative approach to encouraging and supporting companies to submit SBIR proposals. By using existing programs in combination, the Authority helped Arkansas realize more SBIR funding in FY99 than ever before.

**Goal 4 - Help build the education infrastructure for the future.** The Authority routinely does this, primarily through its research programs and the ADVentures in Excellence project, the latter of which concluded its

**Table. Summary of Board Actions on Projects and Investment**

<u>Projects</u>	<u>Board Meetings During FY99</u>							<u>Total</u>	<u>Investment</u>
	<u>7/17</u>	<u>9/18</u>	<u>11/20</u>	<u>1/15</u>	<u>3/19</u>	<u>5/21</u>	<u>6/23</u>		
ADventures . . . . .	.1	.1						.2	\$159,200.00
Applied Research . . . . .	.3	.1			.1	.1		.6	\$292,133.00
Basic Research . . . . .	.3			.4		.3		.10	\$444,525.00
EPSCoR . . . . .					.2	.3		.5	\$270,127.07
Network . . . . .	.10	.1	.5			.6		.22	\$2,124,674.00
Seed Capital . . . . .	.1				.1	.1		.3	\$600,000.00
TDP . . . . .					.1		.1	.2	\$100,000.00
TTAG <sup>(1)</sup> . . . . .	.9	.8	.10	.7	.7	.15		.56	\$192,413.62
<b>TOTAL . . . . .</b>									<b>\$4,183,072.69</b>

*TDP: Technology Development Program*

*TTAG: Technology Transfer Assistance Grant*

*EPSCoR: Experimental Program to Stimulate Competitive Research*

*(1) TTAG totals include Manufacturing Extension Network TTAGs.*

work in Fiscal Year 1999. The Authority is also represented, in an ex officio capacity, on the Board of Trustees of the Arkansas School for Mathematics and Sciences, the state supported residential math and science high school in Hot Springs.

In addition, the Authority's President chaired the Governor's Work Group on Technology, which made recommendations to the Governor and the 82nd Arkansas General Assembly concerning distance learning and a statewide network infrastructure. The recommendations led to the appropriation of a \$12 million investment in infrastructure that supports connectivity among state agencies, higher education institutions, and the public school computer network.

**Goal 5 - Contribute to the preparation of a coherent research and development road map.** The Authority, in close cooperation with the Arkansas Department of Economic Development, supported legislation during the 1999 session that established the Arkansas Research Matching Fund, a strategic tool to help the state's colleges and universities compete for federal funds. Also, the 1996 Arkansas R&D Plan identifies six research areas -- (1) Advanced Materials, (2) Agriculture and Biology, (3) Biotechnology, (4) Environment, (5) Manufacturing, and (6) Transportation and Logistics -- and two support areas -- (1) Human Resources and Communications, and (2) Information Technology -- that are important to the state's economic future.

In FY99, the Authority continued to invest in opportunities for Arkansas. This report highlights these investments, summarized in the table above, and shows how researchers, universities and enterprises are able to strengthen Arkansas' scientific and technological infrastructure through basic and applied research grants, technology development, technology transfer assistance grants, and seed capital investment programs.

With your ongoing support, the Authority will continue to meet the challenges of efficiently and effectively carrying out its mission. We are proud of our achievements and thank you for the opportunity to serve our state. We appreciate your support of the Arkansas Science & Technology Authority.

Sincerely,

Charles Hathaway, Ph.D.  
Chair, Board of Directors

John W. Ahlen, Ph.D.  
President

# About the Authority

The Arkansas Science & Technology Authority (the Authority) was created by statute in 1983 with the mission to bring the benefits of science and advanced technology to the people and state of Arkansas. This mission is addressed by strategies to promote scientific research, technology development, business innovation, and math, science and engineering education.

The Authority is comprised of a Board of Directors, Advisory Committees and staff. The 14-member Board is appointed by the Governor to staggered four-year terms. The Board has three directors who are scientists or engineers, two directors who are representatives of academic institutions, five directors who represent the private sector, three directors who represent the private sector and have knowledge and experience in the field of manufacturing, and the Director of the Department of Higher Education (or the Director's designee).

The Authority's staff is led by the President, the chief executive officer, who is responsible for the agency's programs, services and support functions.

The Authority's activities are divided into three programmatic areas that include research, development and technology transfer. This report details each programmatic area and reports action taken during FY99.

The Board determines the allocation of funds to all projects supported by the Authority. Three Board standing committees, comprised exclusively of members of the Board, make recommendations to the full Board. Advisory Committees, comprised of Board and non-Board members, offer additional inputs to the Authority. Annual reports for the EPSCoR Advisory Committee, the Manufacturing Resource Advisory Committee and the newly created Client Advisory Committee are available. All of the Authority's activities are audited annually to ensure compliance with state and federal guidelines.

The Authority can be reached at:

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Little Rock, AR 72201  
Phone: (501) 324-9006  
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# Research

## Basic Research Grant Program

**Purpose:** The Program encourages, establishes and supports basic research in science and engineering at Arkansas colleges and universities.

### **Program**

**Description:** The Arkansas Science & Technology Authority's Basic Research Grant Program is a competitive, (60 percent state: 40 percent institution) matching grant effort to support basic research in science and engineering. The goals of the Basic Research Grant Program are to promote and support the growth and development of Arkansas scientists and to enhance the status of science and engineering in Arkansas colleges and universities.

**Awards:** The Board approved 10 projects for FY99, representing a total investment of \$444,525.

<u>Proposal</u>	<u>Inst.</u> <sup>(1)</sup>	<u>P.I.</u> <sup>(2)</sup>	<u>Project Description</u>	<u>Amount</u>
99-B-04	UAMS	Drake	Improved Herpesvirus Thymidine Kinases for Cancer Gene Therapy	\$43,808.00
99-B-08	UAMS	Parham	T Cell Immunotherapy of Cervical Cancer . . . . .	\$46,401.00
99-B-11	UAMS	Pasley	Dietary Soybean Estrogens and Cardiovascular Reactivity . . . . .	\$37,818.00
99-B-13	UCA	Frederickson	Improving Methods for Acoustical Determination of Porous Properties	\$13,608.00
99-B-14	UAF	Yang	Regulation of Plant Defense Response by a Pathogen-Induced Transcription Factor . . . . .	\$56,196.00
99-B-15	UAF	Murphy	Plant Biosynthesis of Antibodies for Human Immunotherapy . . . . .	\$43,562.00
99-B-18	ASU	Grippio	Effects of Endocrine Disruptors on Ram Sperm Fertilizability . . . . .	\$26,084.00
99-B-21	UAF	Bellaiche	Finite-temperature Properties of Ferroelectric Alloys. . . . .	\$55,070.00
99-B-26	UAF	Durdik	Enhancing Immune Memory in Old Individuals . . . . .	\$68,682.00
99-B-29	UALR	Jovanovic	Newton-Krylov-Schwarz and Multilevel Parallel Implicit Solvers for Multigroup Radiation Transport Systems . . . . .	\$53,296.00
<b>TOTAL: . . . . .</b>				<b>\$444,525.00</b>

(1) Institution: UAF, University of Arkansas, Fayetteville; UALR, University of Arkansas at Little Rock; UAMS, University of Arkansas for Medical Sciences; ASU, Arkansas State University; and UCA, University of Central Arkansas.

(2) Principal Investigator.

## **Applied Research Grant Program**

**Purpose:** The Program provides incentives to Arkansas industry to participate in applied research. A goal is to encourage investment by industry in the transfer of science and technology from Arkansas colleges and universities.

### **Program**

**Description:** The Arkansas Science & Technology Authority's Applied Research Grant Program is a (50:50) cash-matching effort to support applied research in science and engineering. (A match of \$2 from the state is available for every \$1 from an Arkansas business with 50 or fewer employees.) The goal of the Applied Research Grant Program is to stimulate the transfer of science and technology in Arkansas by enhancing opportunities for research partnerships between Arkansas colleges and universities and private industries.

**Awards:** The Board approved six projects for FY99, representing a total investment of \$292,133.00. Private industry match totaled \$211,068.00.

<u>Proposal</u>	<u>Inst.</u> <sup>(1)</sup>	<u>P.I.</u> <sup>(2)</sup>	<u>Project Title</u> <u>Co-Sponsor</u>	<u>Match</u>	<u>Amount</u>
99-A-01	UAF	Andrews	Investigation of a Hardware Co-processor Solution for Approximate String Matching . . .		\$50,000.00
			<b>Acxiom Corporation . . . . .</b>	<b>\$50,000.00</b>	
99-A-02	UAF	Berghel	Technical Evaluation of Push-Phase Information Access for On-Line Data Delivery .		\$44,998.00
			<b>Acxiom Corporation . . . . .</b>	<b>\$45,000.00</b>	
99-A-03	UAMS	Wennerstrom	Microbial Inactivation Using MHD Technology .		\$49,885.00
			<b>Special Products &amp; Design . .</b>	<b>\$24,943.00</b>	
99-A-04	UAMS	O'Brien	New Diagnostic Test Kits for Screening and Monitoring Women with Ovarian Carcinoma . .		\$66,250.00
			<b>COGS . . . . .</b>	<b>\$35,125.00</b>	
99-A-05	UAF	Balda	Analysis of Particular Difficulties Associated with Induction Motor Drives . . . . .		\$35,000.00
			<b>Baldor Motors &amp; Drives . . .</b>	<b>\$35,000.00</b>	
99-A-06	UAF	Parkerson	Development of Integrated Passive Components . . . . .		\$46,000.00
			<b>AMDC . . . . .</b>	<b>\$23,000.00</b>	
			<b>TOTAL: . . . . .</b>	<b>\$213,068.00</b>	<b>..\$292,133.00</b>

(1) Institution: UAF, University of Arkansas, Fayetteville; and UAMS, University of Arkansas for Medical Sciences.

(2) Principal Investigator(s).

## **Experimental Program to Stimulate Competitive Research (EPSCoR)**

**Purpose:** The Arkansas Science & Technology Authority's EPSCoR effort provides state matching funds for federally-approved research projects.

### **Project**

**Description:** EPSCoR attempts to increase federally supported research in Arkansas institutions of higher education. EPSCoR's goal is to bring Arkansas' science and engineering research to nationally and internationally competitive levels. Guided by an advisory committee to the Authority's Board of Directors, the project is also charged with planning and implementing an effort that would increase federally supported research at colleges and universities.

The federal agencies that participate in EPSCoR include the National Science Foundation, the Environmental Protection Agency, the Departments of Agriculture, Defense, and Energy, the National Aeronautics and Space Administration, and the National Institutes of Health.

**Awards:** The Board approved five projects in FY99, representing a total investment of \$270,127.07.

<u>Proposals</u>	<u>Inst.</u> <sup>(1)</sup>	<u>P.I.</u> <sup>(2)</sup>	<u>Project Title</u>	<u>Amount</u>
97-01	UAMS	Jennings	Formation of an Arkansas Center for Membrane Transport . . . . .	\$10,717.53
97-02	UAF	Salamo	Formation of a Center for Ultra-Fast Electronic-Photonic Material and Devices . .	\$10,717.54
97-01	UAMS	Jennings	Formation of an Arkansas Center for Membrane Transport . . . . .	\$47,251.00
97-02	UAF	Salamo	Formation of a Center for Ultra-Fast Electronic-Photonic Material and Devices . .	\$62,173.00
98-01	UAF	Xiao	University-Industry Partnership for Enabling Advances in Telecommunication: A Semiconductor-Optical Interconnect Device Fabrication Facility Targeted Toward Enhanced Information Processing . . . . .	\$139,268.00
			<b>TOTAL . . . . .</b>	<b>\$270,127.07</b>

(1) Institution: UALR, University of Arkansas at Little Rock; UAF, University of Arkansas, Fayetteville; and UAMS, University of Arkansas for Medical Sciences.

(2) Principal Investigator(s).



## **ADVentures in Excellence**

**Purpose:** ADVentures in Excellence is the continuation of the Ventures in Education pilot project that was initiated in 1991 to implement an innovative effort for increasing academic achievement among minority and low-income high school students in the Arkansas Delta.

### **Project**

**Description:** The mission of ADVentures in Excellence is to create lasting school improvement, measured by student performance, through reform in school culture, curriculum and instructional practices, with special emphasis on mathematics and science -- insuring that ADVentures students will be prepared for success in post-secondary education and the workplace.

The ADVentures project model combines curriculum enhancement, high quality faculty development and intensive career guidance to motivate and prepare students for success in college, post-secondary training and employment. ADVentures builds basic reading comprehension, mathematics and analytical reasoning skills, while students advance through high school. Its primary academic focus is on mathematics and the sciences. Eight schools from four districts participated in the project.

**Awards:** The Board approved two projects in FY99, representing a total investment of \$159,200.

<u>Proposals</u>	<u>Project Title</u>	<u>Amount</u>
99-ADV-02	ADVentures in Excellence: A Proposal for Continuation and Advancement of the Program .....	\$9,200.00
99-ADV-05	ADVentures in Excellence: A Proposal for Continuation and Advancement of the Program .....	\$150,000.00
	<b>TOTAL .....</b>	<b>\$159,200.00</b>

# Technology

## Technology Transfer Assistance Grant Program

**Purpose:** The Technology Transfer Assistance Grant Program (TTAG) assists Arkansas' enterprises in developing or improving products or processes through the transfer of technical solutions to technology-based, industry-driven problems, thus enhancing that enterprise's market competitiveness.

### **Program**

**Description:** The Arkansas Science & Technology Authority provides limited financial support for the transfer and deployment of innovative technology. The Authority will fund up to \$3,750 of costs associated with transferring new or existing technology from a qualified applicant -- such as a public or private enterprise, laboratory, college or university -- to an enterprise based in Arkansas. Up to \$5,000 of total project costs will be considered, with the first \$2,500 funded by the Authority; the remaining \$2,500 is cost-shared equally (50:50) between the Authority and the enterprise. Each enterprise is eligible to receive assistance for two technology transfer projects per year. Projects are evaluated on a competitive basis.

**Awards:** The Arkansas Science & Technology Authority's Board of Directors authorized projects totaling \$153,917.62 through TTAG to help clients solve technical problems. The private sector invested an additional \$45,718.62 in these solutions. These investments assisted 38 separate companies, located in 20 counties representing the following 16 Standard Industrial Classification (SIC) groups:

<b>SIC Grouping</b>	<b><u>Number of Investments</u></b>
Industrial and Commercial Machinery . . . . .	.5
Electronic & Other Electrical Equipment . . . . .	.5
Primary Metal Industries . . . . .	.4
Rubber & Misc. Plastic Products . . . . .	.4
Measuring, Analyzing & Controlling Instruments; Photographic, Medical & Optical Goods; Watches & Clocks . . . . .	.4
Retail . . . . .	.4
Furniture & Fixtures . . . . .	.3
Paper & Allied Products . . . . .	.3
Services: Engineering, Accounting, Research, Mgmt . . . . .	.3
Fabricated Metal Products . . . . .	.3
Services . . . . .	.2
Printing, Publishing & Allied Products . . . . .	.1
Lumber & Wood Products . . . . .	.1
Wholesale-Durable Goods . . . . .	.1
Food & Kindred Products . . . . .	.1
Wholesale- Medical Equipment & Supplies . . . . .	.1
<b>TOTAL . . . . .</b>	<b>.45</b>

**Client Company Profile**

Average Number of Employees	.235 employees
Average Year Corporation Founded	.1980
Most Active Counties	.Sebastian (10), Washington (8)
Average Authority Investment	.\$3,420.39
Average Client Investment	.\$1,015.97

<b><u>Services Rendered</u></b>	<b><u>Number of Investments</u></b>
Quality	.26
SBIR Assistance	.9
Product Development & Design	.4
Business Systems	.2
Environmental	.2
CAD/CAM	.1
Process Improvement	.1
<b>TOTAL</b>	<b>.45</b>

**Arkansas Manufacturing Extension Network**

**Purpose:** The Arkansas Manufacturing Extension Network (Network) is designed to improve Arkansas' manufacturing and industrial competitiveness through the delivery of comprehensive technical and business assistance services.

**Network**

**Description:** The Network is an affiliate of the National Institute of Standards and Technology Manufacturing Extension Partnership and is in year three of a six-year effort. It strives to improve the quality, productivity and global competitiveness of Arkansas' small and medium-sized manufacturers by providing technical and business management assistance services.

The Network's primary partners are: the Arkansas Department of Economic Development; the Arkansas Center for Technology Transfer at the University of Arkansas, Fayetteville; the Center for Competitive Manufacturing at Southern Arkansas University Tech, Camden; the Center for Economic Development at Arkansas State University, Jonesboro; the College of Science and Engineering Technology at the University of Arkansas at Little Rock; the Center for Economic Development at Henderson State University, Arkadelphia; Westark College, Fort Smith; and Winrock International, Morrilton.

Ten field engineers deliver services to manufacturers. Typical services include technical and feasibility assessments, cost/benefit analysis, technology implementation, information transfer and resource partnering.

**Awards:** The Board approved funding in the amount of \$2,124,674.00 to support 10 field engineers: four at the University of Arkansas, Fayetteville; two at the University of Arkansas at Little Rock; one at Arkansas State University; one at Southern Arkansas University Tech; one at Henderson State University; two at Westark College, Fort Smith; and one at Winrock International.

In FY99, Network engineers completed 103 informal engagements that included initial contact and consultation, and 159 service agreements and 11 TTAG projects in the following 18 Standard Industrial Classification (SIC) groups:

<b><u>SIC Grouping</u></b>	<b><u>Number of Service Agreements</u></b>
Electronic & Other Electrical Equipment	.26
Industry Machinery & Equipment	.24
Lumber & Wood Products	.16
Fabricated Metal Products	.15
Service Agreements with Other	.14
Primary Metal Industries	.13
Food & Kindred Products	.12
Paper & Allied Products	.10
Miscellaneous Manufacturing Industries	.8
Transportation Equipment	.8
Rubber & Miscellaneous Plastic Products	.6
Furniture & Fixtures	.6
Measuring & Controlling Devices	.4
Printing, Publishing & Allied Products	.3
Apparel & Fabric Production	.2
Chemical & Allied Products	.1
Leather & Leather Products	.1
Stone, Clay & Glass Products	.1
<b>TOTAL</b>	<b>.170</b>

<b><u>Services Rendered</u></b>	<b><u>Number of Service Agreements</u></b>
Human Resources	.46
Quality/Inspection	.36
Environmental	.22
Business Systems/Business Management	.19
Product Development	.16
Plant Layout/Manufacturing Cells	.9
General	.6
Process Improvement	.5
Financial	.3
Market Development	.2
Control Systems Integration	.2
CAD / CAM / CAE <sup>(1)</sup>	.2
Material Engineering	.2
<b>TOTAL</b>	<b>.170</b>

(1) Computer Aided Drafting / Computer Aided Manufacturing / Computer Aided Engineering.

The Census Bureau surveys each of the Network's clients about 10 months after project completion. The latest data available from these surveys was from projects that closed between August 1997 and July 1998. Network clients reported the following improvements attributed to these projects: increased sales of \$5.6 million, cost reductions (labor and material) of \$105,000, and inventory reductions of \$480,000. In addition, they reported 19 jobs created or retained, resulting in an additional \$480,000 to the economy of Arkansas.

# Development

## Seed Capital Investment Program

**Purpose:** The Seed Capital Investment Program (SCIP) fosters the development of innovative technology-based businesses and projects that will stimulate economic growth and industrial competitiveness in Arkansas.

### **Program**

**Description:** The Program assists in the initial capitalization or expansion of Arkansas-based businesses undertaking projects that are science or technology based and have a commercial or job creation potential. Each dollar invested by SCIP is leveraged by three dollars in matching funds from other sources. SCIP is limited to working capital and does not finance fixed assets.

**Investment:** The Board approved three investments in FY99 for a total of \$600,000.

<u>Proposal</u>	<u>Company</u>	<u>Description</u>	<u>Funds</u> <u>Approved</u>	<u>Amount</u> <u>Dispersed</u>
99-SCIP-01	Audio Access	Designs, Manufactures and Markets, Multi-Channel Assistive Listening Systems. . . . .	\$100,000	.....\$100,000
99-SCIP-02	Ultima	Comprehensive technology solutions to the land title industry. . . . .	\$300,000	.....\$300,000
99-SCIP-03	Prophetline	Develop and market retail management systems for specialty retailers . . . . .	\$200,000	.....\$200,000
<b>TOTAL . . . . .</b>				<b>\$600,000</b>

## **Technology Development Program**

**Purpose:** The Technology Development Program provides assistance in development and commercialization of new technology-based products and processes through innovative technology development projects.

### **Program**

**Description:** The Program may provide monies to qualified applicants if their proposed project possesses a well-defined and comprehensive project plan and promotes the purpose of the Arkansas Science & Technology Authority. The maximum award is limited by law to \$50,000. Awards are considered investments with terms negotiated on a case-by-case basis with a maximum 5 percent royalty on net sales for a maximum period of 10 years.

**Investments:** The Board approved two investments in FY99, representing a total investment of \$100,000.

<u>Proposal</u>	<u>Awardee</u>	<u>Description</u>	<u>Funds Approved</u>
99-TDP-01 <sup>(1)</sup>	VisionQuest	Transmembrane Imaging Neuroendoscope . . . . .	\$50,000
99-TDP-03	UAMS	Vaphiades-Merin VisuScreen, a compact, portable computer-based device to provide test for diseases. . . . .	<u>\$50,000</u>
		<b>TOTAL . . . . .</b>	<b>\$100,000</b>

*(1) Applicant withdrew request after Board approved funding.*

# Fiscal Year 1999

## Expenditure Report

June 30, 1999

<u>App/All</u> <sup>(1)</sup>	<u>General Revenue</u> <u>Character</u>	<u>Appropriation</u> <u>Balances</u>	<u>Budget</u>	<u>Y-T-D</u> <u>Expense</u>	<u>Balance</u>	<u>Percentage of</u> <u>Budget</u>
678/01	REGULAR SAL	456,818	455,376	437,324.44	18,051.56	96.04
	EXTRA HELP	12,000	12,000	2,532.00	9,468.00	21.10
	M & O	144,204	142,649	128,795.01	13,853.99	90.29
	FRINGE	117,827	114,245	104,337.93	9,907.07	91.33
	RESEARCH	973,309	973,309	973,108.50	(200.50)	99.88
	CONFERENCE	19,294	19,294	17,922.05	1,371.95	92.89
	PROF FEES	16,800	14,800	11,696.49	3,103.51	79.03
	CAPITAL OUTLAY	17,000	8,555	7,690.89	864.11	89.90
	TECH DEV	<u>375,000</u>	<u>215,679</u>	<u>186,463.62</u>	<u>29,215.38</u>	<u>86.45</u>
	<b>TOTAL ACT 50 of 1997</b>	<b>\$2,132,252</b>	<b>\$1,955,907</b>	<b>\$1,869,870.93</b>	<b>\$86,036.07</b>	<b>95.60</b>
<u>App/All</u>	<u>Cash</u> <u>Character</u>	<u>Appropriation</u> <u>Balances</u>	<u>Budget</u>	<u>Y-T-D</u> <u>Expense</u>	<u>Balance</u>	<u>Percentage of</u> <u>Budget</u>
A87/01	SEED CAPITAL	1,900,000	1,900,000	600,000.00	1,300,000.00	
B16/02	NETWORK/ENERGY	60,366	60,366	0.00	60,366	0.00
B16/01	TECH DEV/ENERGY	147,126	147,126	0.00	147,126.00	0.00
<u>App/All</u>	<u>MEP Federal</u> <u>Character</u>	<u>Appropriation</u> <u>Balances</u>	<u>Budget</u>	<u>Y-T-D</u> <u>Expense</u>	<u>Balance</u>	<u>Percentage of</u> <u>Budget</u>
919/02	REGULAR SAL	242,324	240,080	159,537.80	80,542.20	66.45
	M & O	245,000	77,107	69,363.48	7,743.52	89.96
	FRINGE	60,984	60,984	37,188.64	23,795.36	60.98
	GRANTS	272,502	176,730	123,811.63	52,918.37	70.06
	CONF FEES	44,402	21,563	18,595.84	2,967.16	86.24
	PROF FEES	5,000	4,281	4,280.00	1.00	99.98
	CAPITAL OUTLAY	61,200	16,000	15,659.63	340.37	97.87
	FIELD SERVICES	985,360	935,292	666,742.46	268,549.54	71.29
	MISC FEES	<u>496,200</u>	<u>341,663</u>	<u>289,439.08</u>	<u>52,223.92</u>	<u>84.71</u>
	<b>TOTAL</b>	<b>\$2,412,972</b>	<b>\$1,873,700</b>	<b>\$1,384,618.56</b>	<b>\$489,081.44</b>	<b>73.90</b>
<u>App/All</u>	<u>Gen. Improvement</u> <u>Character</u>	<u>Appropriation</u> <u>Balances</u>	<u>Budget</u>	<u>Y-T-D</u> <u>Expense</u>	<u>Balance</u>	<u>Percentage of</u> <u>Budget</u>
960/46	NETWORK	1,200,000	600,000	0	600,000	0.00
966/04	GRANTS, NASA	150,000	150,000	150,000	0	100.00
964/46	EPSCoR	6,000,000	2,000,000	1,000,000	1,000,000	50.00
961/46	NETWORK ENHANCEMENT	918,324	500,000	0	500,000	0.00
962/04	HSU/ENHANCEMENT	100,000	0	0		
963/04	WINROCK/ENH	100,000	0	0		
965/04	VIE PILOT PROJECT	<u>374,882</u>	<u>300,000</u>	<u>300,000</u>	<u>0</u>	<u>100.00</u>
	<b>TOTAL ACT 562 of 1997</b>	<b>\$8,843,206</b>	<b>\$3,550,000</b>	<b>\$1,450,000</b>	<b>\$2,100,000</b>	<b>69.05</b>
233/04	EPSCoR	1,000,000	21,435	21,435.07	21,435	0.00

(1) Appropriation/Allocation

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Mountain Home

## **Ex-Officio Member**

**Honorable Allen Gordon**  
State Senator  
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*(1) Separated from Authority during FY99.*

*(2) Assumed new duties during FY99.*